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COMMUNITY COMPOSTING

HOW TO BUILD SOIL AND REDUCE FOOD WASTE
TOGETHER WITH YOUR COMMUNITY

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HOW TO BUILD SOIL AND REDUCE FOOD WASTE
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MAKING AND USING COMPOST WITH YOUR COMMUNITY

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Why make compost together?

Compost, made from plant and vegetable waste, is essential to keep soils healthy. Organic matter breaks down into a healthy, dark, soil-like substance which:

- improves the texture of clay or sandy ground
- makes soil more fertile for growing
- avoids the need for chemical inputs
- helps soil retain moisture
- suppress diseases, and
- nourish plants naturally.

Creating compost with a group, and organising food waste collection from homes, farms or markets will enable you to create a large amount more cheaply, which can be distributed to other house households or sold. It also helps people come together, build relationships, and foster community engagement in reducing organic waste.

What do you need?

You can make a community compost bin anywhere but you will need some space. Sometimes you will need to sort through the material to make sure it is right for composting.

You can make your own compost container using materials like wood, wire mesh, or plastic containers. Good airflow and drainage will help make the compost more quickly and stop bad smells. It doesn't have to be complicated – you can even make compost in a simple heap on a farm if it is far enough away from dwellings.

Make sure your community compost space is easily accessible so that people can add their vegetable scraps. You may need a wheelbarrow or a bicycle with a trailer to collect the compost.

Community Composting

Neighbours may be willing to contribute any vegetable peelings or kitchen scraps if they know these will be collected regularly. Do not use cooked food, especially meat, as this will attract rats.

A collection system will need to be set up and maintained, using wheel barrows, carts or bicycles to gather waste from other houses, markets, farms or shops.

What can you put in?

Compost needs a mixture of:
- "Green" nitrogen-rich material
- "Brown" carbon-rich material

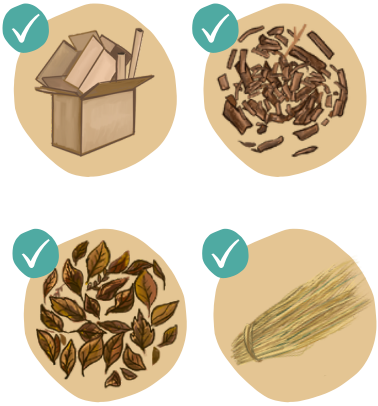
You can experiment with the ratios of each material, but it is good to put in more "brown" material.

You can use the droppings from vegetarian animals, but do not use droppings from meat eating animals as these could contain bacteria harmful to humans.

Shredding or dividing the content into smaller pieces helps it to break down more quickly.

1 PART
Nitrogen-rich

2 PARTS
Carbon-rich



NO

meats; plastics; paint or chemical inks; big pieces of wood; metallic objects; dog or cat poo; dairy products; cooked food; citrus; onions

YES

vegetable peelings; old vegetables; egg shells; green leaves; herbivore droppings

YES

wood chips; cardboard; broken up bits of wood; cut hair; paper or newspaper; clean fish bones

Building a compost site

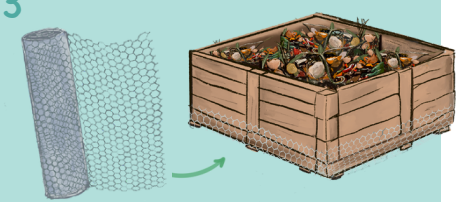
1

Place your compost in a sunny, level spot. Choose an area that is easily accessible by community members. Make a bin out of wood or a sturdy plastic drum. Don't use metal as this may get too hot

2

Try to have good flow of air and water. For example if using a container, you can use a lid to keep out the rain, and have a few small holes to let in air. If you have a pile, make sure it's on ground with good drainage

3

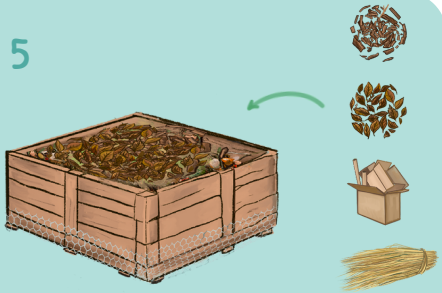


If you are worried about rats or other animals, make sure your compost is in a container, and you can put some wire on the bottom of your compost bin and a lid

4

Put in your plant cuttings and vegetable scraps. Aim for different layers of 'brown' and 'green' materials, and fill the bin regularly until it's full to the top. Turn it every month

5



To stop flies, cover the compost heap with dry material like cardboard or straw, or a lid

Maintaining your compost

1. Turn over the heap with a fork to let in air, once or twice a month. This will mean the compost is ready quicker

2. In cold areas compost that is unturned can take up to a year. In hot climates, if it is turned and covered it is ready more quickly

3. Continue adding new organic material until the bin is full to continue the composting process

4. Once the bin is full, turn the compost once more so the top un-composted material is at the bottom and leave to rest for a few weeks

When is the compost ready?

You can tell when compost is ready by the look, smell and texture. Compost is alive and full of microorganisms, so it's best used fresh.

Time
Between 6 months and 2 years

Colour
Changes to dark brown or very dark

Smells
Like wood and soil

Texture
The feeling is crumbly and soft

How do you use compost?

Once the compost is dark, crumbly, and smells like earth, it is ready to use. It is best used fresh because it contains lots of living microorganisms, but it can be stored, distributed or sold in strong bags for up to six months. Use it like a mulch on top of existing garden beds to improve the soil and nutrients, or mix it with soil and sand to create a potting mix for your seedlings.

Make your own potting mix

Dig some soil in your farm. Mix 60% soil and 40% compost together, adding sand to improve the texture if needed.

Vermicomposting

Vermicompost is composting with a special type of worms. Worms help to process compost more quickly because they love eating vegetable scraps, and will often appear in your compost showing it is healthy.

Compost worms or red tiger worms can also be added to a compost container and make worm 'castings' which is the liquid worm poo. This can be made into a rich liquid fertiliser. To collect the worm castings, you'll need to a container which catches the worm poo and drains off the liquid. This is very rich and should be diluted with water before adding to plants.

Why do Vermicomposting?

Vermicomposting is ideal if you have lots of vegetable scraps and not as much "brown" material available, like wood or cardboard.

This nutrient-rich fertiliser helps to grow soil health and boost plant productivity. This is great for farmers who are moving away from using agriculture chemicals.

Worm castings can contain lots of nutrients that plants need like nitrogen (N), phosphorus (P), and potassium (K), as well as micronutrients like calcium, magnesium, and others.

Vermicomposting can help crops resist drought, help the soil retain water, help soil microbes fix more nitrogen in the soil, and help stabilise soil pH levels.

Only use a vermicomposting method if you have a steady supply of kitchen scraps.

How to set up a vermicomposting bin

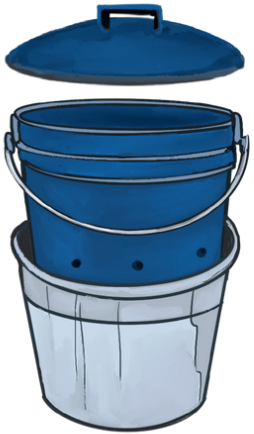
You will need to find red tiger worms in an existing compost bin, or buy them. You will need to make sure you continuously feed them, because they are living creatures and need care and respect. Do not do vermicomposting if you cannot care for the worms.

For vermicomposting, you will need to create an enclosed tub for composting, and a tub to collect the worm 'casting' liquid. You can use reused materials like a plastic tub or bucket, with holes drilled in the bottom, and another tub to catch the liquids.

Make sure there are also enough air holes in the bucket so the worms can breathe. Make sure the bucket is not in the direct sun or too cold, as the worms will need a safe temperature to stay healthy. Keep putting scraps in the bin so they have plenty to eat.

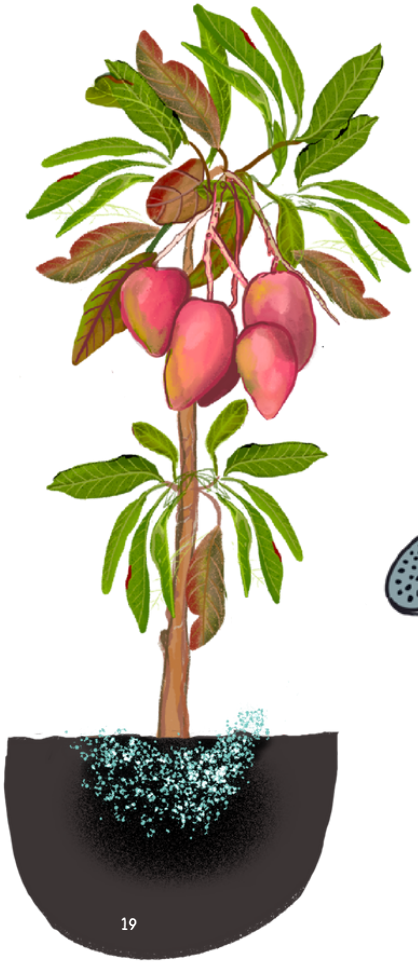
One small handful of worms is enough because they will reproduce quickly, and soon you will be able to share worms with others so they can make a vermicomposting bin too.

1 Drill holes in bottom of tub and airholes in side



2 Place tub in another tub to catch worm 'casting' liquid

3 Add a handful of red worms and kitchen scraps into the tub



1:10

Using worm castings

Collect the liquid that drips out of the bottom of your vermicomposting system. This is a very nutrient rich liquid that can be diluted to be a plant fertiliser.

To use the worm casting liquid, mix it 1:10 with water and spread at the base of plants, once a week.

You can also use the remaining solid compost in the same way that you would use regular compost.

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Re-Alliance is a global network of regenerative practitioners, aiming to advance and showcase regenerative practice across the sectors of humanitarianism and development.

This booklet is part of a series of guidelines which showcase regenerative technologies that can be used in contexts of crisis response or displacement, in order to create better community and ecological health. Find out more on the Re-Alliance website.

www.re-alliance.org/publications

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